MINING AND FINANCIAL

Utah is not lagging behind Ely, Jarbidge or any other new camp in the discovery and development of meneral wealth. A mine, like a prophet ,is frequently without honor in its own country. Familiarity with big producers and great dividend-payers has dulled our sense of appreciation. We wander after strange gods because they are strange and neglect our own because we know them too well. The only real advantage of a new camp is the opportunity offered by a free-handed government to acquire title to property that may be worth millions, by the labor of the hands. Until the boundaries of the productive area are roughly outlined the poorest prospector has an equal chance at the capital prize with the richest. The prizes, however, are always few in comparison with the blanks and the losers, even in the best of new districts, outnumber the winners hundreds to one. Fancy exaggerates the opportunities at the fresh diggings and familiarity blinds to the possibilities in our dooryards. Some of the greatest mining successes have been and are being made beside the beaten trails—and by poor men, too.

* * * *

The newspapers this week have had much to say of the Silver Island Coalition. This company was formed by some entertprising young men whose ambition was directed toward the revival of neglected and abandond fields rather than the greater hazard of untried experiments. They took up some unlocated ground, secured leases and bonds on old claims needed to round out their estate, sought out small investors and gathered the dollars needed to begin work on a small scale. With less than five hundred feet of work they made of the idle and forgotten district a shipper productive of a fine grade of smelting ore. Now they have, by the disposition of treasury stock and the leasing of certain ground, made provision for development work that will assure long years of prosperity for the camp and mine. This satisfactory condition was not reached without many disappointments and difficulties, but these tribulations were no greater than would have been the lot of the promoters had they sought their fortunes in a stampede.

* * * *

Silver Island is not the only district in which men have been rewarded for attention to familiar and despised things. The Cliff, Buffalo Consolidated and Lion Hill are making money from the leaving of the early miners in Ophir district; the Beaver Carbonate company, near Frisco, has uncovered greater wealth than was mined from the original workings before their abandonment; the East Tintic Development and the Provo companies have made finds on the edge of an old district that would set a new camp wild with enthusiasm and, if report is to be relied upon, a copper belt of great merit is being developed by the Beaver Lake Consolidated in a region that has long since passed the age of consent and has been prospected over an dover again. The moral is that familiar things are not to be held too cheaply. Witness the case of the up-to-date- peasant, owner of the goose that laid golden eggs. The peasant was not downcast. Having no fear of the pure food law, he said to his wife: "Never mind We can cover the eggs with whitwash and sell them as fresh ranch eggs."

* * * *

Among the valentines that were not received last Tuesday are the following:

J. K. to the City Councilmen.

Goo-goo eyes are very fine
And bright eyes fair to see;
But if you'd be my valentine
Please make franchise at me.

Here is one that might have been sent to D. C. J. by E. A. W., but those European mails are so unreliable:

I would you were my valentine;
The biggest in the stack;
For then I would just paste you good
And stamp upon your back.

This valentine from A. Stockholuer to C. E. L. was lost at the post:

I Sioux not for your hand;
I Sioux not for your heart;
And when you send a dividend
I'll think you've done your part.

Here is another that was undelivered:

S. S. to T. K.

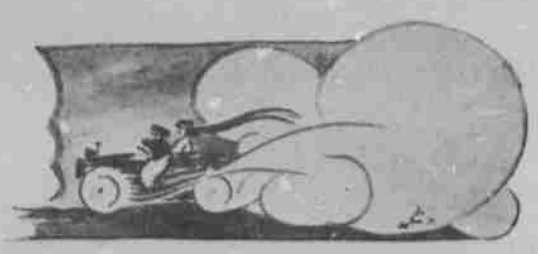
It is my forte to go to court,
So do not turn away,
Nor unkind wordlets say.
If you love me as I love you
The court won't know us
When we get through.

* * * *

Of the dividend declarations last week all that can be said is that the public liked them so well it wanted more of them. Colorado and Iron Blossom with their respective ten and eight cent quarterlies, fulfilled every reasonable expectation. Both are going about the work of development in a businesslike way which means more to the bona fide shareholders than a few cents more or less in the current disbursements. But the silence maintained on this subject at the February meetings of the Sioux Consolidated, Grand Central and Victoria companies makes a noise like apprehension. True, all three may come through with the breadmoney for the first quarter of the year in March, but it is customary to give the secretaries more time than will remain after the March meetings to get out the dividend checks. Dividends from any, or all of these companies at the eleventh hour would cause something of a commotion in the stock market and; for that reason, the unexpected may be expected.

* * * *

Judging from the shipment reports the Sioux should have a fund ample for a five or six-cent quarterly dividend, but the gossips say that the tonnage is misleading, the grade of the ore being so low that it allows the smallest margin of profit. The Grand Central, on the other hand, has made no perceptible increase in production and, unless the value of its ore is much higher than it used to be, a dividend would encroach upon the nest egg laid in the treasury by the Mammoth company at the finish of their protracted litigation.



ONE OF THE RACING CARS OF THE AMERICAN COMPANY
At the Start of the Fairmont Park Races in Philadelphia Recently. Great Things Are Expected of This Car in Future Races as it is a 70 h. p.

WHAT MAKES IT GO?

By C. B. Owen.

ALL forms of mechanical energy are primarily derived from some sort of heat.

The sun's heat vaporizes water from lake, river and ocean, which, returning in the form of rain and snow, feed the rivers which turn the water wheels that drive the dynamos to produce electric currents to light our homes and run our street cars. The modern locomotive furnishes a very familiar example of this also, in that the heat stored in the coal by nature is liberated as the coal is consumed under the boiler, thus turning the water in the boiler into steam, which in turn moves the pistons to and fro in the engine cylinders, and through the necessary connections between the pistons and driving wheels, furnishes the power to draw the train.

But the very best modern steam engine is very wasteful, as only about 20 per cent of the heat contained in the coal is actually turned into available power, the other 80 per cent lost in the various stages of the process.

The modern gas engine, as used for stationary and automobile work, is more economical, as it omits the use of the boiler and burns its fuel in the cylinder of the engine, thus applying the power derived from the rapid combustion or driving wheel of the engine. The same natural laws govern the action of both, and these laws briefly stated are:

"The pressure of a gas varies inversely with the volume and directly with the temperature.

"The volume of a gas varies inversely with the pressure and directly with the temperature.

"The temperature of a gas varies directly with both the pressure and volume.

Application of these laws:

In the gas engine, as used for automobile work, several limitations are necesarily imposed by the conditions.

Among these are the requirements of light weight; of a tuel in a liquid form easily vaporized; and of a reliable means of igniting this vapor in the engine cylinder.

Concerning the design of the best types of automobile engines, many volumes have been written, so the writer will only atempt to describe that form of motor most generally used, and which is called the "four-cycle engine," from the four movements of the piston necessary to produce power. Comparing again with the steam engine, we find that steam is generated in the boiler to a high pressure, that it is conveyed to the engine cylinder under this pressure, where it is confined, and by its expansive force causes the piston to move in the cylinder of the engine.

In the gas engine we have no such source of supply of gas, but must produce our gas from the liquid fuel as it is required by the engine.

Therefore, the fuel must be capable of rap-